THE GEOGRAPHICAL JOURNAL

VOLUME 152
JANUARY TO DECEMBER
1986

PUBLISHED UNDER THE AUTHORITY OF THE COUNCIL

EDITED BY DR B. H. FARMER

THE ROYAL GEOGRAPHICAL SOCIETY
KENSINGTON GORE LONDON SW7 2AR

ROYAL GEOGRAPHICAL SOCIETY

Patron
HER MAJESTY THE QUEEN

Honorary President
HRH THE DUKE OF KENT, GCMG, GCVO

Honorary Vice-Presidents
Dr G. C. L. Bertram
The Rt Rev. Launcelot Fleming, KCVO
Sir Vivian Fuchs, FRS
The Lord Hunt, KG, CBE, DSO
Rear-Admiral Sir Edmund Irving, KBE, CB
Sir Laurence Kirwan, KCMG
Sir Gilbert Laithwaite, GCMG, KCB, KCIE, CSI
Professor W. R. Mead
G. P. Pirie-Gordon
The Rt Hon. Lord Shackleton, KG, PC, OBE
Professor J. A. Steers, CBE
Professor M. J. Wise, CBE, MC

THE COUNCIL
(Elected 2 June 1986 for the Session of 1986–87)
President: Sir George Bishop, CB, OBE

Vice-Presidents

Professor Denys Brunsden
Lord Chorley
Harold Gould, FCA
David Hall
Viscount Montgomery of Alamein
Dr M. Sweeting
Professor J. Thornes

Honorary Treasurer: Alan Tritton

Honorary General Secretaries
Professor E. H. Brown; Professor A. S. Goudie

Honorary Foreign Secretary
Col. Stephen Gilbert, RE

Members of Council

Professor W. G. V. Balchin
Lt-Gen. Sir John Chapple
Miss Pat Cleverley
Professor Keith Clayton
Dr David Drewry
Sir Donald Hawley
Dr John Heap
Robert Hicks, MP
Peter F. Holmes, MC
Baroness Hooper
Geoffrey Larminie
Professor Richard Lawton
B. J. Lenon
Grenville Lucas, OBE
A. S. MacDonald
Professor David Rhind
John Ritblat
Richard Snailham
Major-General C. Thompson
Rex Walford
Sir James Watt

Director and Secretary: Dr John Hemming

Deputy Director and Keeper of the Map Room: Brigadier G. Gathercole

Librarian: David Wileman, ALA

Bursar: C. J. Pinckney

Editor, The Geographical Journal: Dr B. H. Farmer

Bankers: Barclays Bank Ltd (Cocks Biddulph Branch), 16 Whitehall, SW1A 2EA
Williams and Glyn's Ltd., Kirkland House, Whitehall, SW1A 2EB

RGS COMMITTEES (appointed 9 June 1986)

Finance and General Purposes Committee: *Chairman*, Alan Tritton. Sir Peter Allen; George Band; Lord Chorley; Harold Gould, Clive Jermy; David Newbigging; Frank Steele.

Investment Sub-Committee: Colin Brown; F. K. Nixson; Alan Tritton; Professor M. J. Wise.

Library and Maps Committee: *Chairman*, Dr Helen Wallis. Brian Candy; Dr C. Board; Dr M. Darby; R. H. Fairclough; A. P. Harvey; John Maggs; Alexander Maitland; C. I. M. O'Brien; H. C. Prince; Elizabeth Rodger; Mrs Ann Shirley; Dr J. Townshend; Mrs Sarah Tyacke.

Research Committee: *Chairman*, Professor A. S. Goudie. Professor R. U. Cooke; Professor Derek Diamond; Alan Gilbert; Professor K. J. Gregory; Dr David Hilling; D. K. C. Jones; B. J. Lenon; Grenville Lucas; Dr Phillip Ogden; Adrian Phillips; Professor D. W. Rhind.

Expeditions Committee: *Chairman*, David Hall. John Burton; Lt-Gen. Sir John Chapple; Dr Malcolm Coe; Mark Collins; Dr David Drewry; Dr N. Flemming; A. R. Hanbury-Tenison; Dr John Heap; Lord Hunt; Clive Jermy; Dr B. Juel-Jensen; Grenville Lucas; Dr F. Alayne Perrott; Dr D. R. Stoddart; Dr M. Sweeting; Professor J. Thornes. Juliet Gayton (*Rep.* British Council).

Education Committee: *Chairman*, Professor W. G. V. Balchin. Trevor Bennetts; David Boardman; Miss P. J. Cleverley; A. D. Cooper; Professor N. J. Graves; D. H. H. Howell; B. J. Lenon; Professor Norman Pye; Geoffrey Sherlock; Rex Walford.

Editorial Advisory Committee: *Chairman*, Professor E. H. Brown. Professor B. W. Atkinson; Iain Bain; Dr Hugh Clout; Dr Russell King; Professor Norman Pye; Dr D. R. Stoddart; Professor D. M. Thomas; Dr J. W. R. Whitehand; Dr M. Williams.

Young Members' Committee: *Chairman*, B. J. Lenon. Mrs N. Bennett-Jones; Mrs D. Boys; Dr P. Coones; R. D. Crabtree; Miss S. Harrison; Tom Harvey; Dr P. Jackson; Jonathan Raper; Joanna Symons; Captain Ashe Windham.

Joint Committee for the EAC: *Chairman*, Peter Drake. Professor D. Brunsden, Roger Chapman; R. G. Derrick; David Hall; B. Needham. *Ex-officio members*, E. Grey; Dr J. H. Hemming. *Hon. Sec.*, A. E. Land.

Note: Ex-officio members serve on all RGS committees.

CONTENTS

Volume 152 *March 1986*

EARLY INDUSTRIALIZATION IN EUROPE: CONCEPTS AND PROBLEMS R. A. Butlin 1

CHINA'S WATER CRISIS: THE CASE OF TIANJIN (TIENTSIN) A. J. Jowett 9

STRIAE AND FORMER ICE-FLOW DIRECTIONS IN SNOWDONIA, NORTH WALES Campbell Gemmell, Dominic Smart and David Sugden 19

TRADITIONAL AGRICULTURE AND WATER USE IN THE SOKOTO VALLEY, NIGERIA W. M. Adams 30

THE PROSPECT FOR DESERTIFICATION IN KAJIADO DISTRICT, KENYA David J. Campbell 44

GATEWAYS: EXAMPLES FROM AUSTRALIA, WITH SPECIAL REFERENCE TO CANBERRA James Bird 56

THE ORIGIN AND GEOMORPHOLOGICAL SIGNIFICANCE OF CLOSED DEPRESSIONS IN THE LUBOMBO MOUNTAINS OF SWAZILAND Andrew Watson 65

TWO HUNDRED YEARS OF THE GEOGRAPHICAL–CARTOGRAPHICAL INSTITUTE IN GOTHA M. Linke, M. Hoffman and J. A. Hellen 75

DUNGENESS FORELAND: ITS SHINGLE RIDGES AND WHAT LIES UNDER THEM D. H. Baillie Reynolds 81

FIFTY YEARS AGO 88

REVIEWS 89

CARTOGRAPHIC SURVEY 129

THE SOCIETY'S NEWS 137

THE RECORD 140

OBITUARIES 144

CORRESPONDENCE 148

MEETINGS: SESSION 1985–86 150

Volume 152 *July 1986*

THE M25—A NEW GEOGRAPHY OF DEVELOPMENT?
P. J. Damesick, N. Lichfield and M. Simmons 155

WHY DID WARWICKSHIRE KEY SETTLEMENT POLICY CHANGE IN 1982? AN ASSESSMENT OF THE POLITICAL IMPLICATIONS OF CUTS IN RURAL SERVICES
J. A. A. Sillince 176

THE STATE OF AFRICA IN THE 1980S A. T. Grove 193

THE SCRAMBLE FOR AFRICA: INHERITED POLITICAL BOUNDARIES I. Griffiths 204

THE EARLY HISTORY OF THE HAKLUYT SOCIETY 1847–1923 D. Middleton 207

A FRENCH VIEW OF GEOGRAPHY TEACHING IN BRITAIN IN 1871 H. F. Andrews 225

LAND USE AND REGIONAL PLANNING PROBLEMS IN THE NEW TERRITORIES OF HONG KONG
D. J. Dwyer 232

THE FATE OF SIR HUGH WILLOUGHBY AND HIS COMPANIONS: A NEW CONJECTURE Eleanora C. Gordon 243

THE FUTURE OF ANTARCTIC RESOURCES
W. N. Bonner 248

FIFTY YEARS AGO 256

DICTIONARIES OF GEOGRAPHY: Review J. A. Steers 257

REVIEWS 259

CARTOGRAPHIC SURVEY 283

THE SOCIETY'S NEWS 291

THE RECORD 293

OBITUARIES 300

MEETINGS 304

Volume 152 *November 1986*

THE PRESIDENTIAL ADDRESS Sir George Bishop 307

THE IMPACT OF THE CHANNEL TUNNEL M. Chisholm and R. A. Gibb 314

GILLMAN OF TANGANYIKA, 1882–1946: PIONEER GEOGRAPHER B. S. Hoyle 354

THE SCOTT KELTIE REPORT, 1885, AND THE TEACHING OF GEOGRAPHY IN GREAT BRITAIN M. J. Wise 367

ADVANCED TELECOMMUNICATIONS AND REGIONAL ECONOMIC DEVELOPMENT A. E. Gillespie and J. B. Goddard 383

FIFTY YEARS AGO 398

REVIEWS 399

CARTOGRAPHIC SURVEY 423

THE SOCIETY'S NEWS 432

THE RECORD 434

OBITUARIES 437

MEETINGS 439

ANNUAL INDEX 446